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Town of North Reading
Massachusetts

Department of Public Works

April 29, 2005

Massachusetts Department of Environmental Protection
Division of Watershed Management
627 Main Street
Worcester, MA 01608

RE: Year 2 (March 2004 to March 2005) Annual Report for the NPDES Phase II Permit
Town of North Reading, Massachusetts
EPA NPDES Permit Number MAR041215

To Whom It May Concern:

Enclosed please find the Year 2 Annual Report for the NPDES Phase II Small MS4 General Permit with an original certification signature page for the Town of North Reading.

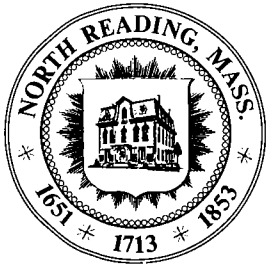
If you have any questions or require any additional information, please do not hesitate to contact me at (978) 664-6060.

Very truly yours,

Town of North Reading

Michael P. Soraghan, P.E.
Town Engineer

cc: EPA, Water Technical Unit
D. Hanlon, Town of North Reading
J. Lachmayr, Malcolm Pirnie Inc.



Town of North Reading
Massachusetts

Department of Public Works

April 29, 2005

U.S. Environmental Protection Agency
Water Technical Unit
PO Box 8127
Boston, MA 02114

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D. Hanlon, Town of North Reading
J. Lachmayr, Malcolm Pirnie Inc.

Municipality/Organization: Town of North Reading, MA

EPA NPDES Permit Number: MAR041215

MaDEP Transmittal Number: W- 041239

Annual Report Number

& Reporting Period: No. 2: March 04-March 05

NPDES PII Small MS4 General Permit Annual Report

Part I. General Information

Contact Person: Michael Soraghan

Title: Town Engineer

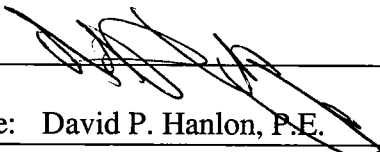
Telephone #: 978-664-6026

Email: msoraghan@northreadingma.gov

Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature:



Printed Name: David P. Hanlon, P.E.

Title: Acting Town Administrator

Date:

4/28/04

Part II. Self-Assessment

The Town of North Reading has completed the required self-assessment and has determined that our municipality is in compliance with all permit conditions.

We have modified the schedule to extend BMP 3A (Illicit Connection Identification) completion from Summer 2004 to Summer 2005. Extension was necessary due to Route 62 roadwork in the Town that included newly installed drainage that was not completed until after Summer 2004.

We have modified the schedule and measurable goal for BMPs 4A, 4C, and 5D (Construction and Post Construction ordinance and bylaw implementation) to define the development of the ordinance/bylaw as the measurable goal. The acceptance and implementation is dependent on Town Meeting vote.

Part III. Summary of Minimum Control Measures

1. Public Education and Outreach

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
1A	Two meetings with Town	DPW/ M. Soraghan	Hold a meeting on storm water in Town.	Held several planning meetings with the newly established Wastewater and Storm Water Advisory Committee (WSWAC). Discussed the Committee's public education and outreach role.	WSWAC to hold regular meetings to act as a forum for public input on storm water management issues in the Town.
Revised					
1B	Develop plan for public education	DPW/ M. Soraghan	Identify and develop public education programs.	Based on needs assessment conducted, identified public education programs for the WSWAC to implement. Activities include: coordination with the Reading/North Reading Stream Team and the Martins Pond Association, development of public outreach materials including septic system brochures, storm drain stenciling, and river clean-ups.	Coordinate public outreach activities.
Revised					
Revised					
Revised					

1a. Additions

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2. Public Involvement and Participation

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
2A	Two meetings with Town	DPW/ M. Soraghan	Number of meetings held.	Held several meetings with the Town that included public involvement from the WSWAC and Martins Pond Association.	If funds are available continue the Ipswich River Park clean-up day.
Revised				Continued Ipswich River Park clean-up day & BBQ sponsored by the Reading/North Reading stream team.	
2B	Public Participation Plan	DPW/ M. Soraghan	Number of programs developed.	Completed “needs assessment” and made recommendations for the WSWAC that included coordination with existing Town agencies/groups including the Martins Pond Association, Reading/North Reading Stream Team, and the Ipswich River Watershed Association. Outlined two programs to implement: stenciling and public outreach materials.	Begin public outreach activities.
Revised					

2a. Additions

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3. Illicit Discharge Detection and Elimination

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
3A	Illicit Connection Identification	DPW/ M. Soraghan	# of dry weather outfalls assessed.	477 out of 567 outfalls have been assessed.	Continue assessments.
Revised					
3B	Illicit Source Identification	DPW/ M. Soraghan	# of illicit sources investigated.	12 outfalls have been identified for further investigation.	Continue to identify suspect outfalls.
Revised					
3C	Ordinance development to prohibit non-storm water flows	DPW/ M. Soraghan	Bylaw/Ordinance adopted by Town.	Formulated draft bylaw and recommendations to review with applicable Town departments.	Meet with applicable Town departments to discuss bylaw language development.
Revised			Recommend Bylaw/Ordinance language at Town Meeting.		
3D	Storm Water map development	DPW/ M. Soraghan	Map completed showing outfalls.	263 of 263 existing storm water system maps have been digitized.	Complete mapping of outfalls based on completion of dry weather outfall assessments.
Revised	Storm Water map development	DPW & Planning M. Soraghan K. Honetschlager	Map completed showing outfalls.		
Revised					
Revised					

3a. Additions

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4. Construction Site Stormwater Runoff Control

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
4A Revised	Ordinance development for waste control	DPW/ M. Soraghan	Ordinance adopted by Town. Recommend ordinance/bylaw language at Town Meeting.	Held meeting with applicable Town departments to present a draft bylaw that included waste control.	Meet with applicable Town departments to discuss bylaw language development.
4B Revised	Formalize site plan review procedures	DPW/ M. Soraghan	Site plan review procedures document complete.	Held meeting with applicable Town departments to discuss draft bylaw and new site plan review requirements.	Meet with applicable Town departments (including the Community Planning Commission, Conservation Commission, and Board of Health) to discuss bylaw language development and site plan review responsibilities.
4C Revised	Revised ordinance to address storm water pollution	DPW/ M. Soraghan	Revised ordinance/bylaw adopted. Recommend ordinance/bylaw language at Town Meeting.	Held meeting with applicable Town departments to present draft bylaw that included criteria to address runoff from construction activities.	Meet with applicable Town departments to determine bylaw language development.
4D Revised	BMP Manual	DPW/ M. Soraghan	Handbook completed and adopted by Town.	Prepared draft manual.	Review and finalize draft manual.
4E Revised	Formalize Inspection Procedures	DPW/ M. Soraghan	Standard operating procedures on inspections complete.	Held meeting with applicable Town departments to present draft bylaw and inspection regulations.	Meet with applicable Town departments to finalize bylaw language development and procedures.

4a. Additions

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5. Post-Construction Stormwater Management in New Development and Redevelopment

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
5A Revised	Procedures for long-term O&M	DPW/ M. Soraghan	Adoption of procedures by Town.	Held meeting with applicable Town departments to present draft bylaw that included operation and maintenance plan criteria.	Meet with applicable Town departments to develop bylaw language and procedures.
5B Revised	Site plan review procedures for water quality impacts	DPW/ M. Soraghan	Adopt procedures.	Held meeting with applicable Town departments to present draft bylaw that included site plan review after construction activities are complete.	Meet with applicable Town departments to develop bylaw language and procedures.
5C Revised	BMP Handbook	DPW/ M. Soraghan	BMP Handbook.	Prepared draft manual.	Review and finalize draft manual.
5D Revised	Revise ordinance to address storm water pollution	DPW/ M. Soraghan	Revised Ordinance/bylaw adopted. Recommend ordinance/bylaw language at Town Meeting.	Held meeting with applicable Town departments to present draft bylaw that included criteria to address runoff after construction activities are complete.	Meet with applicable Town departments to develop bylaw language.
Revised					
Revised					

5a. Additions

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6. Pollution Prevention and Good Housekeeping in Municipal Operations

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
6A	Employee Training	DPW/ M. Soraghan	# of employees trained.	Conducted Storm Water Management workshop with Town departments and the DPW to review current practices at Town facilities. A total of (18) employees attended the training workshop.	No action anticipated.
Revised					
6B	Prioritized Street Sweeping	DPW/ M. Soraghan	Schedules and prioritized street sweeping.	Continued routine street sweeping.	Review current practices and make recommendations for future street sweeping activities.
Revised					
6C	Spill Response and Prevention	DPW/ M. Soraghan	Develop procedures.	At Storm Water Management Workshop discussed proper spill response and prevention BMPs implemented at Town facilities.	No action anticipated.
Revised					
6D	Prioritized Catch Basin Cleaning	DPW/ M. Soraghan	Schedules and prioritizes cleaning.	Continued routine Catch Basin cleaning.	Review current practices and make recommendations for future catch basin cleaning activities.
Revised					
Revised					
Revised					

6a. Additions

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7. BMPs for Meeting Total Maximum Daily Load (TMDL) Waste Load Allocations (WLA) <<if applicable>>
- NOT APPLICABLE -

BMP ID #	BMP Description	Responsible Dept./Person Name	Measurable Goal(s)	Progress on Goal(s) – Permit Year 2 (Reliance on non-municipal partners indicated, if any)	Planned Activities – Permit Year 3
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					
Revised					

7a. Additions

7b. WLA Assessment

Part IV. Summary of Information Collected and Analyzed

During this Annual Report period, no data reports have been generated.

Part V. Program Outputs & Accomplishments (OPTIONAL)

Programmatic

Stormwater management position created/staffed	(y/n)	
Annual program budget/expenditures	(\$)	

Education, Involvement, and Training

Estimated number of residents reached by education program(s)	(# or %)	
Stormwater management committee established	(y/n)	
Stream teams established or supported	(# or y/n)	Y
Shoreline clean-up participation or quantity of shoreline miles cleaned	(y/n or mi.)	Y
Household Hazardous Waste Collection Days		
▪ days sponsored	(#)	1
▪ community participation	(%)	
▪ material collected	(tons or gal)	
School curricula implemented	(y/n)	

Legal/Regulatory

	In Place Prior to Phase II	Under Review	Drafted	Adopted
Regulatory Mechanism Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination	X	X		
▪ Erosion & Sediment Control	X	X		
▪ Post-Development Stormwater Management	X	X		
Accompanying Regulation Status (indicate with "X")				
▪ Illicit Discharge Detection & Elimination		X		
▪ Erosion & Sediment Control		X		
▪ Post-Development Stormwater Management		X		

Mapping and Illicit Discharges

Outfall mapping complete	(%)	95 ¹
Estimated or actual number of outfalls	(#)	567 ²
System-Wide mapping complete		
Mapping method(s)		
▪ Paper/Mylar	(%)	100 ³
▪ CADD	(%)	Unknown
▪ GIS	(%)	84% ⁴
Outfalls inspected/screened	(# or %)	477 or 84%
Illicit discharges identified	(#)	12
Illicit connections removed	(#) (est. gpd)	0
% of population on sewer	(%)	1%
% of population on septic systems	(%)	99%

- Notes: 1. Based on available mapping of outfalls.
2. Updated based on revised mapping and outfall assessments conducted.
2. 100% of all new and existing outfalls have drainage plans filed with Town.
3. 84% correlates to the percentage of outfalls visited and GPS located.

Construction

Number of construction starts (>1-acre)	(#)	
Estimated percentage of construction starts adequately regulated for erosion and sediment control	(%)	
Site inspections completed	(# or %)	
Tickets/Stop work orders issued	(# or %)	
Fines collected	(# and \$)	
Complaints/concerns received from public	(#)	

Post-Development Stormwater Management

Estimated percentage of development/redevelopment projects adequately regulated for post-construction stormwater control	(%)	
Site inspections completed	(# or %)	
Estimated volume of stormwater recharged	(gpy)	

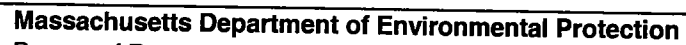
Operations and Maintenance

Average frequency of catch basin cleaning (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of catch basin cleaning (commercial/arterial or other critical streets)	(times/yr)	1
Total number of structures cleaned	(#)	1443
Storm drain cleaned	(LF or mi.)	0 (unless clogged)
Qty. of screenings/debris removed from storm sewer infrastructure	(lbs. or tons)	
Disposal or use of sweepings (landfill, POTW, compost, recycle for sand, beneficial use, etc.)		Beneficial use
Cost of screenings disposal	(\$)	

Average frequency of street sweeping (non-commercial/non-arterial streets)	(times/yr)	1
Average frequency of street sweeping (commercial/arterial or other critical streets)	(times/yr)	1
Qty. of sand/debris collected by sweeping	(lbs. or tons)	
Disposal of sweepings (landfill, POTW, compost, beneficial use, etc.)	(location)	Beneficial use
Cost of sweepings disposal	(\$)	
Vacuum street sweepers purchased/leased mechanical sweeper	(#)	2
Vacuum street sweepers specified in contracts	(y/n)	N

Reduction in application on public land of: (“N/A” = never used; “100%” = elimination)		
▪ Fertilizers	(lbs. or %)	
▪ Herbicides	(lbs. or %)	
▪ Pesticides	(lbs. or %)	

Anti-/De-Icing products and ratios	% NaCl % CaCl ₂ % MgCl ₂ % CMA % Kac % KCl % Sand	60% NaCL 35% Sand 5% CaCL²
Pre-wetting techniques utilized	(y/n)	Y
Manual control spreaders used	(y/n)	Y
Automatic or Zero-velocity spreaders used	(y/n)	N
Estimated net reduction in typical year salt application	(lbs. or %)	
Salt pile(s) covered in storage shed(s)	(y/n)	Y
Storage shed(s) in design or under construction	(y/n)	N



**BRP WM 08A NPDES Stormwater General Permit Notice of Intent
for Discharges from Small Municipal Separate Storm Sewer Systems (MS4s)**

Transmittal Number	W 041239
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